

Author Index of Volumes A25-A27

- Ache, H. J., 439, 481
 Albertshofer, W., 443
 Anderer, B., 571
 Angurel, L. A., 775
 Ansermet, S., 605
 Appel, W., 175
 Arn, D., 395
 Aubry, E., 825
 Azzouz, Y., 637
- Badini, G. E., 483
 Baillieu, F., 357
 Bakker, R. J., 449
 Baltes, H., 243, 363, 509,
 577, 731
 Bantien, F., 21
 Barrios, L. J., 51
 Bartolomé, J., 775
 Barybin, S. N., 767
 Bassett, M., 825
 Bauer, S., 407, 417
 Becker, K., 125
 Benecke, W., 1
 Bergveld, P., 331, 515
 Berlicki, T., 629
 Berthoud, J., 605
 Bertuol, B., 95
 Betancourt, F., 51
 Bethe, K., 285
 Bezinge, A., 605
 Blasquez, G., 301
 Bley, P., 559
 Blom, F. R., 379, 691
 Blom N., 395
 Boltshauser, T., 509
 Bornand, E., 597
 Bossche, A., 737, 789, 801
 Boubrik, B., 825
 Bouwstra, S., 79, 385, 723
 Boyer, A., 637
 Brandenbusch, M., 161
 Brenninger, H., 139
 Brignell, J. E., 29, 37, 313
 Brunetti, L., 633
 Budzier, H., 413
 Burbaum, C., 559
 Buser, R. A., 717
- Caspari, M., 781
 Castagnetti, R., 363
 Chandran, L., 243
 Cheron, J. P., 637
 Cheshmehdoost, A., 307
 Chovet, A., 741
 Cisse, E., 637
 Clampitt, R., 15
 Clerc, D., 181
 Culshaw, B., 711
- Cutri, F., 433
 Czolk, R., 439
- Dario, P., 251
 Da Silva, M., 459
 Davies, S. T., 15
 de Rooij, N. F., 591, 597,
 605, 717
 Descherdeer, P., 741
 Dettmann, F., 763
 Donzier, E., 357
 Du, C. L., 155
 Dubler-Steudle, K., 395
- Edlinger, J., 155
 Ehrfeld, W., 559, 571
 Eikelmann, E., 621
 Elbel, T., 653
 Elwenspoek, M., 379, 385,
 685, 691
 Erb, O., 277
 Ermert, H., 541
 Estève, D., 459
- Fauquembergue, R., 741
 Filippozzi, J. L., 459
 Fischer, K., 425
 Flaschka, E., 125
 Flokstra, J., 781
 Fluitman, J. H. J., 79,
 379, 685, 723
 Frere, P. E. M., 821
 Freyberger, F., 453
 Fröhlich, C., 453
 Fry, P. W., 845
- Gakkestad, J., 859
 Gambling, W. A., 191
 Garthe, D., 341
 Gerlach-Meyer, U. E., 555
 Gervino, G., 633
 Goiser, P., 641
 Gonzalo, J., 775
 Goosen, J. F. L., 583
 Göpel, W., 705
 Gottfried-Gottfried, R.,
 753
 Gruber, N., 395
 Graf, G., 175
 Graf, H.-G., 87
 Grattan, K. T. V., 483
 Grigorenko, A. N., 767
 Groeneweg, J., 565
 Gross, W., 475
 Grunwald, G., 467
 Guinea, D., 51
- Haász, A., 677
 Harendt, C., 87
- Harnisch, F., 549
 Harsányi, G., 852
 Harvey, R. A., 493
 Hauptmann, P., 371, 705
 Hazell, M. S., 493
 Heerens, W. C., 265, 829
 Heering, W., 161
 Heinrichs, K., 809
 Henning, B., 705
 Henning, W., 109
 Herzog, J. P., 219
 Hinz, G., 277
 Höfflinger, B., 87, 175
 Hoffmann, B., 793
 Hofmann, G., 413
 Hök, B., 527
 Hölzlein, K., 349
 Houwman, E. P., 781
- Ijntema, D. J., 385
 Immonen, E., 671
- Jachimowicz, A., 641
 Jakobsen, H., 859
 Jaszcuk, W., 781
 Jones, B. E., 197, 307
 Jones, R., 493
- Kapenieks, A., 271
 Katz, L., 133
 Kirschner, I., 671, 677
 Klein, C. F., 385
 Klotins, E., 271
 Koch, A., 201
 Kohl, F., 641
 Konov, V. I., 767
 Korvink, J., 243
 Kotleris, J., 271
 Krauss, M., 413
 Kreicbergs, P., 271
 Kress, H.-J., 21
 Kroemer, N., 549
 Kroschel, K., 43
 Kühl, K., 9
 Kühnel, W., 521
 Kuntz, W., 497
 Kunz, R. E., 155
 Kuttner, H., 641
- Lach, M., 541
 Lambeck, P. V., 449
 Lammerink, T. S. J., 685,
 691
 Lange, P., 1
 Langheinrich, W., 647
 Larik, J., 349
 Lefort, O., 357
- Legtenberg, R., 723
 Leisengang, D., 121
 Lenggenhager, R., 577
 Leppävuori, S., 671, 677
 Lera, F., 775
 Leroy, A., 741
 Levin, Yu. K., 759
 Linder, C., 591
 Liu, X. P., 197
 Löchel, B., 1
 Lopatin, V. A., 759
 Lubking, G. W., 699
 Lucas, Ch., 147
 Lucklum, R., 705
 Lukosz, W., 181, 185, 337
- Makhotkin, V. E., 759
 Manthey, W., 549
 Marchukov, P. Yu., 759
 Marek, J., 21
 Martínez, A., 775, 781
 Mathieu, N., 741
 Matsuguchi, M., 489
 Maycock, K., 433
 Meijer, G. C. M., 613
 Meixner, H., 103
 Meyer, J., 647
 Meyrueis, P., 219
 Mingay, P. W., 15
 Miehlich, E., 793
 Mock, R., 103
 Mohr, J., 559, 571
 Mokwa, W., 753
 Mollinger, J. R., 737, 789,
 801
 Monticone, E., 633
 Mores, R., 497
 Moser, D., 577
 Möser, R., 57
 Müller, J., 425
 Münch, W. V., 167
 Munter, P. J. A., 747
- Nathan, A., 363
 Navarro, R., 775
 Nellen, Ph. M., 181
 Neumann, N., 413
 Nicolics, J., 235
 Niewisch, J., 213
 Nikitin, P. I., 767
 Norkus, V., 413
- O'Connor, B., 307
 Offereins, H. L., 9
 Ohlkers, P., 859
 Olcaytug, F., 641
 Osadnik, S., 629
 Otaredian, T., 659

- Palmer, A. W., 483
 Paratte, L., 597
 Parkin, R., 433
 Penteker, E., 87
 Peters, D., 425
 Pfeifer, T., 621
 Pliska, P., 337
 Ploss, B., 407, 417
 Pons, P., 301
 Popma, Th. J. A., 449
 Porjesz, T., 671
 Prak, A., 691
 Preusse, N., 277
 Prociów, E., 629
 Prudenziati, M., 227
 Pulker, H. K., 155
 Qian, W. C., 535
 Racine, G.-A., 597
 Ratier, N., 301
 Reichert, J., 439, 481
 Reichl, H., 63
 Reinhoudt, D. N., 449
 Regtien, P. P. L., 257
 Renner, M., 825
 Rillo, C., 775, 781
 Rogalla, H., 781
 Ros, S., 51
 Ross, J. N., 209
 Roth, P., 219
 Rottmann, F., 763
 Rudin, S., 731
 Rudolph, H., 665
 Ruiz, A., 51
 Ruppel, W., 401
 Sadaoka, Y., 489
 Sakai, Y., 489
 Sandmaier, H., 9, 815
 Sarro, P. M., 583
 Scheeper, P. R., 331
 Schieferdecker, J., 413
 Schierbaum, K. D., 705
 Schmidt, B., 467
 Schmidt, G., 453
 Schnakenberg, U., 1
 Schooneveld, E. M., 659
 Schopf, H., 401
 Schott, H., 467
 Schultheis, L., 717
 Schuur, C., 129
 Schwäier, A., 115
 Seekircher, J., 793
 Seifert, M., 155
 Seitzer, D., 665
 Sellien, W., 481
 Sessler, G. M., 323
 Shi, W. H., 37
 Shurukhin, B. P., 759
 Smetana, W., 235
 Spence, S. L., 79
 Spirkovitch, S., 357
 Spooncer, R. C., 197
 Sprenkels, A. J., 331
 Spronck, J. W., 265
 Stamm, Ch., 185
 Stankevič, V., 295
 Sudhölter, E. J. R., 449
 Tarasenko, S. D., 829
 Téllez, P., 775
 ter Brake, H. J. M., 781
 Thérez, F., 459
 Thiemann, U., 167
 Thiessen, R., 463
 Tilmans, H. A. C., 79, 385
 Tschan, T., 605
 Tseung, A. C. C., 483
 Ullerich, S., 1
 Ulrich, R., 201
 Urban, G., 641
 Uusimäki, A., 671
 Vaihinger, S., 705
 van der Donk, A. G. H.,
 331, 515
 van Duyn, D. C., 565
 van Gent, J., 449
 van Gestel, H. C. J. M.,
 737, 789, 801
 van Herwaarden, A. W.,
 565
 van Kampen, R. P., 835
 van Mullem, C. J., 379
 van Rhijn, A. J., 699
 Veldhuis, D., 781
 Vellekoop, M. J., 535, 699
 Venema, A., 535, 699
 Vernie, K., 665
 Vincent, D. R., 209
 Vöhringer, P., 175
 Voorthuizen, J. A., 331,
 515
 Voorwinden, C. H., 613
 Wachutka, G., 731
 Wagner, U., 73
 Walsh, D., 711
 Walther, L., 413
 Wernz, A., 43
 Widmer, H. M., 395
 Willmann, M., 21
 White, N. M., 313
 Wolffenbuttel, M. R., 257
 Wolffenbuttel, R. F., 583,
 835
 Wouters, S. E., 659
 Würfel, P., 401
 Žilionis, S., 295
 Zimmer, G., 753
 Zimmermann, E., 591
 Zingg, R., 175
 Zhu, F., 265
 Zucker, O., 647

Subject Index of Volumes A25-A27

- Acceleration sensors
fabrication of capacitive, by LIGA technique, 559
- Accelerometer(s)
characterization and modelling of Si piezoresistive,
fabricated by bipolar-compatible process, 605
to measure angular rate in automobiles, problems of
using, 821
micromachined capacitive, 555
- Acoustic absorption film
for SAW devices, 535
- Acoustic sensors, 323
- Acoustic sensor system
for object recognition, 541
- Active sensors
compatibility of thin-film and semiconductor technology for monolithically integrated, 665
- Additives
 NH_4OH -based etchants for Si micromachining;
influence of, and stability of passivation layers, 1
- Aluminum
 AlGaAs semiconductor pressure sensors, 295
- Ammonium
development of fiber-optic sensor for detection of, in environmental waters, 481
- Ammonium hydroxide
 NH_4OH -based etchants for Si micromachining;
influence of additives and stability of passivation layers, 1
- Amorphous metal alloys
robust magnetoelastic force sensor using, with low magnetic interference, 793
- Amorphous ribbons
magnetic field sensors based on, 759
- Angular displacement sensor
integrable capacitive, with improved linearity, 835
- Angular rate
in automobiles, problems of using accelerometers to measure, 821
- Arsenic
 AlGaAs semiconductor pressure sensors, 295
new GaAs integrated magnetic field sensors with high sensitivities, 741
- Automobiles
problems of using accelerometers to measure angular rate in, 821
- Automotive systems
sensors as key components for, 95
- Battery operated meters
M-Bus, bus concept for, 139
- BiCMOS
bus interface logic for advanced system applications, 133
- BIMOS signal processor
novel, for PT 100 temperature sensors with microcontroller interfacing, 613
- Bio-acoustic signals
microphone design for, with suppression of noise and artifacts, 527
- Biosensors
input and output grating couplers as integrated optical, 181
- Bipolar-compatible process
characterization and modelling of Si piezoresistive accelerometers fabricated by, 605
- Bolometers
interference effects of thermal waves and their application to, and pyroelectric detectors, 417
- Bond quality
Si direct bonding for sensor applications; characterization of, 87
- Brain research
19-channel d.c. SQUID magnetometer system for, 781
- Bus concept
for battery operated meters, M-Bus, 139
- Bus interface logic
BiCMOS, for advanced system applications, 133
- Bus systems, 109
- Cadmium
optical sensor for detection of Cd(II) ions, 439
- Cap wafer
resonating microbridge mass flow sensor with low-temperature glass-bonded, 723
- CCD linear arrays
construction, properties and application of pyroelectric single-element detectors and 128-element, 413
- Ceramics
sensitivity of high- T_c superconducting, as magnetic field sensors, 775
- Chemo-optical sensor
design and realization of surface plasmon resonance-based, 449
- CMOS circuit
front end, for full-bridge piezoresistive, 859
- CMOS-compatible
magnetic field sensors fabricated in standard and in Si insulator technologies, 753
- CMOS signal-conditioning circuit
Si pressure sensor with integrated, and compensation of temperature coefficient, 21
- CMOS technology
Si gas flow sensors using industrial, and bipolar IC technology, 577
- Combustion chamber
miniaturized high-temperature pressure sensor for, of spark ignition engine, 103
- Condition monitoring
ruggedized fibre-optic accelerometer array for low-frequency, 493

- Convex corners**
methods for fabrication of, in anisotropic etching of (100) Si in aqueous KOH, 9
- Cryogenic liquid level indicator**
based on t.e.m.f. of high-temperature superconductors, 671
- Decorrelation methods**
sensor fault detection and localization using, 43
- Design considerations**
for micromechanical sensors using encapsulated built-in resonant strain gauges, 79
for permanent-rotor-charge-excited micromotor with electrostatic bearing, 583
- DETF resonator**
characteristics of force transducer incorporating mechanical, 307
- Diaphragms**
Q-factor and frequency shift of resonating Si in air, 691
non-linear analytical modelling of bossed, for pressure sensors, 815
- Differential resonator design**
using bossed structure for applications in mechanical sensors, 385
- Displacement measuring**
laser heterodyne, using PLZT frequency shifter, 271
- Displacement sensor(s)**
fiber-optic, with 0.02 μm resolution by white-light interferometry, 201
integrable capacitive angular, with improved linearity, 835
novel magnetic, PLCD, 277
optical fibre, with extended range using two-wavelength referencing, 197
simple capacitive, 265
- Dynamometrical sensors**
(many) problems, (some) solutions, 285
- Electrically insulated smart sensors**
principles for operation and supply, 497
- Electronic circuitry**
for smart spinning-current Hall plate with low offset, 747
- Electrostatic bearing**
design considerations for permanent-rotor-charge-excited micromotor with, 583
- Electrostatic stepper motor**
with axial field, design of integrated, 597
- Etchants**
 NH_4OH -based, for Si micromachining; influence of additives and stability of passivation layers, 1
- Etching**
methods for fabrication of convex corners in anisotropic, of (100) Si in aqueous KOH, 9
- Faraday effect**
magnetic field fibre-optical sensors based on, 767
- Fault tolerance**
reliability and, of low-cost multipoint sensor interfaces, 73
- FET**
p-n photodetector-FET devices with gain at each detector site, 459
Si condenser microphone with integrated, 521
- Fibre-optic accelerometer array**
for low-frequency condition monitoring, ruggedized, 493
- Fibre-optic displacement sensor**
with 0.02 μm resolution by white-light interferometry, 201
- Fibre-optic hybrid sensors**
optical power supply for, 475
- Fibre-optic microphone**, 341
- Fibre-optic sensor**
for detection of ammonium in environmental waters, development of, 481
magnetic field, based on Faraday effect, 767
- Fibre-optic sensor applications**
use of sol-gel techniques for, 483
- Fibre-optic shock-wave sensor**
improved design for, 213
- Fieldbus chip**
state of development of, 129
- Fieldbus developments**
for measuring and control applications, progress in, 115
- Field sensing**
fast, with photodiode arrays, 161
- Flow measurement**
by new push-pull swirlmeter, 809
- Flowmeter**
optical fiber, with temperature correction, 219
- Force sensor**
piezoelectrically driven Si beam, 379
robust magnetoelastic, using amorphous metal alloys with low magnetic interference, 793
- Force transducer**
characteristics of, incorporating mechanical DETF resonator, 307
- Frequency dependence**
of thermal excitation of micromechanical resonators, 685
- Frequency output**
Si magnetic field sensor with, 349
- Frequency shift**
Q-factor and, of resonating Si diaphragms in air, 691
- Gallium**
AlGaAs semiconductor pressure sensors, 295
new GaAs integrated magnetic field sensors with high sensitivities, 741
- Gas detection**
quartz microbalance sensors for, 705
- Gas flow sensors**
Si, using industrial CMOS and bipolar IC technology, 577
- Gas sensors**
optical-fibre and quartz oscillator type; humidity detection by Nafion® film with crystal violet and related compounds, 489
surface acoustic wave; applications in chemical industry, 395

- Grating couplers**
 - input and output, as integrated optical biosensors, 181
- Hall plate**
 - electronic circuitry for smart spinning-current, with low offset, 747
- Harmonic response**
 - of Si capacitive pressure sensor, 301
- High-temperature superconductors**
 - cryogenic liquid level indicator based on t.e.m.f. of, 671
 - sensitivity of high- T_c superconducting ceramics as magnetic field sensors, 775
- Humidity detection**
 - by Nafion® film with crystal violet and related compounds; optical-fibre and quartz oscillator type gas sensors, 489
- Humidity sensor(s)**
 - capacitive, in SACMOS technology with moisture absorbing photosensitive polyimide, 509
 - integrated optical interferometer as relative, and differential refractometer, 185
 - three-dimensional modelling of capacitive, 243
- IC technology**
 - Si gas flow sensors using industrial CMOS and bipolar, 577
- Image sensors**
 - photodiodes in epitaxial laterally overgrown Si for, in 3D-technology, 175
- Infrared**
 - integrated pyroelectric IR matrix sensor arrays, 401
- Infrared detection**
 - some recent developments and future trends, 147
- Insulator technologies**
 - CMOS-compatible magnetic field sensors fabricated in standard and in Si on, 753
- Interconnection**
 - packaging and, of sensors, 63
- Ion beams**
 - micromachining with focused, 15
- Laser heterodyne displacement measuring**
 - using PLZT frequency shifter, 271
- Laser powder detector**
 - built up by application of thick-film technology, 235
- Laser range camera**
 - three-dimensional, for sensing environment of mobile robot, 453
- Laser sensors**
 - external cavity, 463
- LIGA technique**
 - fabrication of capacitive acceleration sensors by, 559
- Light modulator**
 - integrated optical interferometer as, and microphone, 337
- Lithography**
 - fabrication of planar grating spectrography by deep etch, with synchrotron radiation, 571
- Load cell**
 - planar thick-film, 313
- Low-voltage ion-plated films**
 - integrated optical sensors based on reactive, 155
- Magnetic field fibre-optical sensors**
 - based on Faraday effect, 767
- Magnetic field sensor(s)**
 - based on amorphous ribbons, 759
 - CMOS-compatible, fabricated in standard and in Si on insulator technologies, 753
 - integrated, 357
 - new GaAs, with high sensitivities, 741
 - sensitivity of high- T_c superconducting ceramics as, 775
 - Si, with frequency output, 349
- Magnetic interference**
 - robust magnetoelastic force sensor using amorphous metal alloys with low, 793
- Magnetic microsensor modeling**
 - thermal effects in, 731
- Magnetic sensor array**
 - for two-dimensional pattern-shift measurements, 737
- Magnetometer system**
 - 19-channel d.c. SQUID, for brain research, 781
- Magnetoresistive sensors**
 - new; engineering and application, 763
- Magnetotransistors**
 - noise correlation and operating conditions of dual-collector, 363
- Mass flow sensor**
 - resonating microbridge, with low-temperature glass-bonded cap wafer, 723
- Material properties**
 - assessment of; optically activated Si microresonator transducers, 711
- M-Bus**
 - bus concept for battery operated meters, 139
- Measuring sensors**
 - irreversible thermodynamic theory of, 677
- Mechanical sensors**
 - differential resonator design using bossed structure for applications in, 385
- Metal deformation measurements**
 - on-chip; capacitive approach, 789
- Magnetoelastic force sensor**
 - robust, using amorphous metal alloys with low magnetic interference, 793
- Microcalorimeters**
 - thin-film thermopiles, 633
- Microcontroller interfacing**
 - novel BIMOS signal processor for PT 100 temperature sensors with, 613
- Micromachined capacitive accelerometer**, 555
- Micromachining**
 - with focused ion beams, 15
 - NH₄OH-based etchants for Si, influence of additives and stability of passivation layers, 1
- Micromechanical resonators**
 - frequency dependence of thermal excitation of, 685
- Micromechanical sensors**
 - design considerations for, using encapsulated built-in resonant strain gauges, 79
- Micromotor**
 - design considerations for permanent-rotor-charge-excited, with electrostatic bearing, 583
- Microphone**
 - fibre-optic, 341

- integrated optical interferometer as light modulator and, 337
- optimization of capacitive, and pressure sensor performance by capacitor-electrode shaping, 331
- Si condenser, with integrated FET, 521
- Microphone design**
 - for bio-acoustic signals with suppression of noise and artifacts, 527
- Microphone preamplifiers**
 - general considerations of noise in, 515
- Microresonator transducers**
 - optically activated Si; assessment of material properties, 711
- Microsensor modeling**
 - thermal effects in magnetic, 731
- MOS detection circuit**
 - capacitive polysilicon resonator with, 591
- Motor**
 - design of integrated electrostatic stepper, with axial field, 597
- Multi-functional sensors**
 - investigation of polysilicon for application to, 647
- Multisensor module system**
 - construction of, exemplified by intelligent internal thread sensor, 621
- Multisensor system**
 - statistical analysis evaluation of, 51
- Noise**
 - microphone design for bio-acoustic signals with suppression of, and artifacts, 527
 - in microphone preamplifiers, general considerations, 515
- Noise correlation**
 - and operating conditions of dual-collector magnetotransistors, 363
- Nuclear radiation detector**
 - novel diffusion-based Si, 659
- Object recognition**
 - acoustic sensor system for, 541
- On-line optimization**
 - in sensor frequency response compensation, 37
- Optical biosensors**
 - input and output grating couplers as integrated, 181
- Optical fibre(s)**
 - displacement sensor with extended range using two-wavelength referencing, 197
 - flowmeter with temperature correction, 219
 - for sensors, 191
- Optical-fibre gas sensors**
 - humidity detection by Nafion® film with crystal violet and related compounds, 489
- Optical interferometer**
 - integrated as light modulator and microphone, 337
 - integrated, as relative humidity sensor and differential refractometer, 185
- Optical power supply**
 - for fiber-optic hybrid sensors, 475
- Optical sensor(s)**
 - for detection of Cd(II) ions, 439
 - integrated, based on reactive low-voltage ion-plated films, 155
- Optics**
 - integrated, based on Si oxynitride thin films deposited on Si substrates for sensor applications, 425
- Packaging**
 - and interconnection of sensors, 63
- Passivation layers**
 - NH₄OH-based etchants for Si micromachining; influence of additives and stability of, 1
- Pattern-shift measurements**
 - magnetic sensor array for two-dimensional, 737
- Photodetector-FET devices**
 - p-n, with gain at each detector site, 459
- Photodiode arrays**
 - fast field sensing with, 161
- Photodiodes**
 - in epitaxial laterally overgrown Si for image sensors in 3D-technology, 175
- Photosensor**
 - high-resolution vibration measurements using position-sensitive, 467
- Piezoresistive pressure sensor**
 - front end CMOS circuit for full-bridge, 859
- Piezoresistive stress measurement**
 - on-chip, in three directions, 801
- Plate wave oscillator system**
 - all-Si, for sensors, 699
- Platinum**
 - novel BIMOS signal processor for Pt 100 temperature sensors with microcontroller interfacing, 613
- PLCD**
 - novel magnetic displacement sensor, 277
- PLZT**
 - frequency shifter, laser heterodyne displacement measuring using, 271
- Polyimide**
 - capacitive humidity sensors in SACMOS technology with moisture absorbing photosensitive, 509
- Polymer foil**
 - ultrasonic transducers with piezoelectric, 549
- Polymer thick-film technology**
 - possibility to obtain very low cost pressure sensors, 853
- Position-sensitive photosensor**
 - high-resolution vibration measurements using, 467
- Pressure sensor(s)**
 - AlGaAs semiconductor, 301
 - front end CMOS circuit for full-bridge piezoresistive, 859
 - harmonic response of Si capacitive, 301
 - miniaturized high-temperature, for combustion chamber of spark ignition engine, 103
 - non-linear analytical modelling of bossed diaphragms for, 815
 - optimization of capacitive microphone and, performance by capacitor-electrode shaping, 331
 - polymer thick-film technology; possibility to obtain very low cost, 853
 - Si, based on resonating element, 717
 - Si, with integrated CMOS signal-conditioning circuit and compensation of temperature coefficient, 21
- Pressure transducer**
 - Series 2000; taking cost out of industrial, 845

- Pseudo-random discrete signals
sensor electronics using; features and problems of new strategy, 57
- PVDF
pyroelectric detector array with, on Si integrated circuit, 167
- Pyroelectric detector array
with PVDF on Si integrated circuit, 167
- Pyroelectric detector(s)
construction, properties and application of pyroelectric single-element detectors and 128-element CCD linear arrays, 413
interference effects of thermal waves and their application to bolometers and, 417
- Pyroelectric sensor(s)
characterization of materials for integrated, 407
integrated pyroelectric IR matrix sensor arrays, 401
- Quartz microbalance sensors
for gas detection, 705
- Quartz oscillator type gas sensors
optical-fibre and; humidity detection by Nafion® film with crystal violet and related compounds, 489
- Radiation sensors
miniaturized thermoelectric, covering wide range with respect to sensitivity or time constant, 653
- Reliability
and fault tolerance of low-cost multipoint sensor interfaces, 73
- Resonant sensors
and applications, 371
- Resonant strain gauges
design considerations for micromechanical sensors using encapsulated built-in, 79
- Resonating element
Si pressure sensor based on, 717
- Resonating microbridge
mass flow sensor with low-temperature glass-bonded cap wafer, 723
- Resonator(s)
capacitive polysilicon, with MOS detection circuit, 591
frequency dependence of thermal excitation of micromechanical, 685
- r.m.s. value measurements
thermal thin-film sensors for, 629
- Robot
three-dimensional laser range camera for sensing environment of mobile, 453
- Rotating yarns
on-line measurement of high-speed, 825
- SACMOS technology
capacitive humidity sensors in, with moisture absorbing photosensitive polyimide, 509
- SAW devices
acoustic absorption film for, 535
- Semiconductor technology
compatibility of thin-film and, for monolithically integrated active sensors, 665
- Series 2000
taking cost out of industrial pressure transducer, 845
- Shock-wave sensor
improved design for fibre-optic, 213
- Sensor applications
integrated optics based on Si oxynitride thin films deposited on Si substrates for, 425
Si direct bonding for; characterization of bond quality, 87
- Sensor compensation
software techniques for, 29
- Sensor electronics
using pseudo-random discrete signals; features and problems of new strategy, 57
- Sensor fault detection
and localization using decorrelation methods, 43
- Sensor frequency response compensation
on-line optimization in, 37
- Sensor interfaces
reliability and fault tolerance of low-cost multipoint, 73
- Sensor system
acoustic, for object recognition, 541
- Silicon
all-optical single-fibre micromachined Si resonant sensor; towards commercial device, 209
all-Si plate wave oscillator system for sensors, 699
capacitive polysilicon resonator with MOS detection circuit, 591
characterization and modelling of Si piezoresistive accelerometers fabricated by bipolar-compatible process, 605
CMOS-compatible magnetic field sensors fabricated in standard and in Si on insulator technologies, 753
Q-factor and frequency shift of resonating Si diaphragms in air, 691
harmonic response of Si capacitive pressure sensor, 301
integrated optics based on Si oxynitride thin films deposited on Si substrates for sensor applications, 425
investigation of polysilicon for its application to multi-functional sensors, 647
methods for fabrication of convex corners in anisotropic etching of (100) Si in aqueous KOH, 9
NH₄OH-based etchants for Si micromachining; influence of additives and stability of passivation layers, 1
novel diffusion-based Si nuclear radiation detector, 659
optically activated Si microresonator transducers; assessment of material properties, 711
photodiodes in epitaxial laterally overgrown Si for image sensors in 3D-technology, 175
piezoelectrically driven Si beam force sensor, 379
polysilicon bridges for realization of tactile sensors, 257
pyroelectric detector array with PVDF on Si integrated circuit, 167
- Si condenser microphone with integrated field-effect transistor, 521
- Si direct bonding for sensor applications; characterization of bond quality, 87
- Si gas flow sensors using industrial CMOS and bipolar IC technology, 577

- Si magnetic field sensor with frequency output, 349
- Si pressure sensor with integrated CMOS signal-conditioning circuit and compensation of temperature coefficient, 21
- Si pressure sensor based on resonating element, 717
- small-size vacuum sensors based on Si thermopiles, 565
- Sinec
 - concept and implementation, 125
- Smart sensors
 - electrically insulated; principles for operation and supply, 497
- Software techniques
 - for sensor compensation, 29
- Sol-gel techniques
 - for fibre-optic sensor applications, use of, 483
- Spark ignition engine
 - miniaturized high-temperature pressure sensor for combustion chamber of, 103
- Spectrograph
 - fabrication of planar grating, by deep-etch lithography with synchrotron radiation, 571
- Spectrometerdiode
 - with spectral resolution of 3 nm in 660–900 nm range, tunable, 443
- SQUID magnetometer system
 - 19-channel d.c., for brain research, 781
- Statistical analysis evaluation
 - of multisensor system, 51
- Strain gauge
 - absolute, 829
- Stress measurement
 - on-chip piezoresistive, in three directions, 801
- Surface acoustic wave gas sensors
 - applications in chemical industry, 395
- Surface measurement
 - of planed and moulded timber products, 433
- Swirlmeter
 - flow measurement by new push-pull, 809
- Synchrotron radiation
 - fabrication of planar grating spectrograph by deep-etch lithography with, 571
- Tactile sensing
 - technology and applications, 251
- Tactile sensors
 - polysilicon bridges for realization of, 257
- Temperature gradient measurements
 - microminiaturized thermistor arrays for, flow and perfusion measurements, 641
- Temperature sensors
 - novel BIMOS signal processor for Pt 100, with microcontroller interfacing, 613
- Thermal effects
 - in magnetic microsensor modeling, 731
- Thermal excitation
 - frequency dependence of, of micromechanical resonators, 685
- Thermal sensors
 - narrow-bandgap semiconductor-based, 637
- Thermal thin-film sensors
 - for r.m.s. value measurements, 629
- Thermal waves
 - interference effects of, and their application to bolometers and pyroelectric detectors, 417
- Thermistor arrays
 - microminiaturized, for temperature gradient, flow and perfusion measurements, 641
- Thermodynamic theory
 - irreversible, of measuring sensors, 677
- Thermoelectric radiation sensors
 - miniaturized, covering wide range with respect to sensitivity or time constant, 653
- Thermoelectromotive force
 - cryogenic liquid level indicator based on t.e.m.f. of high-temperature semiconductors, 671
- Thermopiles
 - small-size vacuum sensors based on Si, 565
 - thin-film, in microcalorimeters, 633
- Thick-film technology, 227
 - laser power detector built up by application of, 235
- Thread sensor
 - construction of multisensor module system exemplified by intelligent internal, 621
- Three-dimensional modelling
 - of capacitive humidity sensors, 243
- Three-dimensional technology
 - photodiodes in epitaxial laterally overgrown Si for image sensors in, 175
- Timber products
 - surface measurement of planed and moulded, 433
- Token Bus Modem, 121
- Ultrasonic transducers
 - with piezoelectric polymer foil, 549
- Vacuum sensors
 - small-size, based on Si thermopiles, 565
- Vibration measurements
 - high-resolution, using position-sensitive photosensor, 467
- White-light interferometry
 - fiber-optic displacement sensor with 0.02 μm resolution by, 201
- Yarns
 - on-line measurement of high-speed rotating, 825